

Recovery Plan Action Status

Plan Name: Tobusch Fishhook Cactus

Plan Status: Final

Plan Date: 18-Mar-87

Lead Agency: USFWS

Lead Office: Austin Ecological Services Field Office

(490-0057)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Tobusch fishhook cactus (Ancistrocactus tobuschii)	1	111	Develop cooperation with private landowners	Ongoing Current	FY 2007		U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Management: Depredation Control, Management: Population Monitoring, Management: Propagation	Species Expert	Private landowner working with FWS botanist to monitor populations, protect individual cacti from rodent predators, and (planned) propagation for reintroduction.
Tobusch fishhook cactus (Ancistrocactus tobuschii)	1	112	Develop cooperation with land managing agencies	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Other: Information and Education	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	1	113	Provide permanent land protection	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Division of Realty, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Acquisition: Easement, Acquisition: Fee Title, Acquisition: General	Internal Administrative, Internal Technical Assistance	'04 - put out call for proposals for NFWF conservation fund FY 05 - NFWF conservation funds transferred to LBJ Wildflower Center.
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	12	Develop management plans	Not Started			U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	131	Prevent drainage modifications	Not Started			U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	132	Control safe site access	Not Started			U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	

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Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	133	Enforce trade regulations	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Law Enforcement Division, Texas Parks and Wildlife Department, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Other: Law Enforcement	Internal Technical Assistance	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	1	134	Establish buffer zones	Not Started			U.S. Fish and Wildlife Service, Division of Realty, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	2	Establish a botanical garden living collection	Not Started			U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	3	311	Determine pollinators	Complete	Prior to FY 1995	FY 1995 - FY 1999	U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Research: Demographic Studies	Graduate Student	R.T. Emmett investigated demographics and ecology for Ph.D. dissertation, completed in 1995.
Tobusch fishhook cactus (Ancistrocactus tobuschii)	3	312	Determine seed dormancy and longevity	Not Started			U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	313	Determine germination requirements	Complete	Prior to FY 1995	FY 1995 - FY 1999	U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Research: Propagation	Graduate Student	R.T. Emmett investigated demographics and ecology for Ph.D. dissertation, completed in 1995.
Tobusch fishhook cactus (Ancistrocactus tobuschii)	3	314	Determine micro-habitat	Complete	Prior to FY 1995	FY 1995 - FY 1999	U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Research: Habitat Requirements	Graduate Student	R.T. Emmett investigated demographics and ecology for Ph.D. dissertation, completed in 1995. M.W. Lockwood published paper in 1995. K.A. Sutton investigated for Master's thesis in 1997.

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Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	315	Determine relationship with associated flora	Complete	Prior to FY 1995	FY 1995 - FY 1999	U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Research: Habitat Requirements	Graduate Student	R.T. Emmett investigated demographics and ecology for Ph.D. dissertation, completed in 1995. M.W. Lockwood published paper in 1995. K.A. Sutton investigated for Master's thesis in 1997.
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	316	Evaluate affects of livestock and other animals	Complete	FY 1995 - FY 1999	FY 2000 - FY 2004	U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Research: Management Techniques	Graduate Student	K.A. Sutton investigated for Master's Thesis, 1997; J. Baccus, TXSU-San Marcos submitted report to TPWD, 1999.
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	32	Determine demographic statistics	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Research: Demographic Studies	Species Expert	Demographics investigated by R.T. Emmett, K.A. Sutton, and annually by Jackie Poole (TPWD botanist).
Tobusch fishhook cactus (Ancistrocactus tobuschii)	3	33	Establish delisting criteria	Not Started			U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Management: Planning	Contract, Internal Administrative, Internal Technical Assistance, Species Expert	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	41	Locate new populations	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Management: Population Monitoring	Species Expert	Surveys conducted by R.T. Emmett, M.W. Lockwood, K.A. Sutton, C. Best (USFWS botanist 2007-2008) and annually by J.M. Poole (TPWD botanist).
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	42	Survey new populations	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Management: Population Monitoring	Species Expert	Surveys conducted by R.T. Emmett, M.W. Lockwood, K.A. Sutton, C. Best (USFWS botanist 2007-2008) and annually by J.M. Poole (TPWD botanist).
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	5	Develop a trade management plan for all cacti	Not Started			U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Management: Planning	Contract, Internal Administrative, Species Expert	

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Tobusch fishhook cactus (Ancistrocactus tobuschii)	3	61	Develop propagation techniques	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Research: Propagation	Species Expert	Propagation studies being conducted by San Antonio Botanical Garden; presumed ongoing, start date unknown.
Tobusch fishhook cactus (Ancistrocactus tobuschii)	3	62	Make propagated plants commercially available	Not Started			U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	71	Increase public knowledge	Complete	FY 2005	FY 2006	U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Other: Information and Education	Species Expert	J.M. Poole (TPWD botanist) prepared outreach pamphlet for landowners, with support from NRCS, around 2005 or later.
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	72	Inform public of recovery effort	Ongoing Current	FY 2009	FY 2009	U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Other: Information and Education	Species Expert	Austin ESFO will complete 5-year review on or before 31 Aug 09.
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	73	Establish a local technical group	Not Started			U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Management: General, Other: Information and Education	Species Expert	
Tobusch fishhook cactus (Ancistrocactus tobuschii)	2	74	Establish local interest group	Ongoing Current	FY 2009		U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 2	Management: General	Internal Technical Assistance	Austin ESFO working with several landowners interested in forming landowner support group.